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AS

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/235,686 01/22/99 LIU

A AC06105

IM22/1017

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EXAMINER

JACKSON, M

ART UNIT

PAPER NUMBER

1773

DATE MAILED:

10/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Advisory Action**

Applicant(s)

09/235,686

Applicant(s)

LIU ET AL.

Examiner

Monique R Jackson

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 10/1/01 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.
- NOTE: \_\_\_\_\_
3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See attached.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: None.

Claim(s) objected to: None.

Claim(s) rejected: 1-9, 11, 12, 16, 20-22, 26-29, 33-35 and 39-61.

Claim(s) withdrawn from consideration: None.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
10. ☐ Other: \_\_\_\_\_

**ADVISORY ACTION**

Continuation of Item 5. Note: The request for reconsideration and Applicant's arguments with regards to the obviousness rejections over Albrinck et al have been considered but are not persuasive. First, regarding the obviousness rejection over Albrinck et al in view of Takahashi et al and in further view of the admitted prior art, the Applicant argues that there is no motivation to combine the references given that Takahashi et al teaches away from the combination considering that Takahashi et al is directed to coating a surface without penetration while Albrinck et al is directed to impregnating a substrate. However, in response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, though the primary reference Albrinck et al teaches impregnating the substrate while Takahashi teaches to avoid penetration, both references are directed to producing a laminate material that has a **surface** that is provided with **abrasion resistance** wherein the excellent scratch and abrasion resistance is attributed to **abrasion-resistant particles** provided in a resin composition, and hence, one skilled in the art would look to the teachings of Takahashi et al with regards to **improving surface abrasion resistance** given that Takahashi et al specifically teaches that **spherical particles**, preferably alpha-alumina because it has an extremely high hardness and can impart high abrasion resistance, **provide greatly improved abrasion resistance as compared with**

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**particles in an indeterminate form** made of the same material. Takahashi et al further teach that spherical particles provide additional advantages namely spherical particles do not wear a coating applicator used and the hardened layer containing the spherical particles has improved transparency and also does not wear those things which are brought into contact with the layer. Hence, the Examiner maintains that it would have been *prima facie* obvious to one skilled in the art to utilize spherical abrasion resistant particles to provide improved abrasion resistance as taught by Takahashi et al to improve the abrasion resistance of the decorative laminate taught by Albrinck et al, utilizing routine experimentation to determine the optimum abrasion-resistant particulate material and optimum loading to provide the desired abrasion and scratch resistance for a particular end use.

In regards to the obviousness rejection of Albrinck et al in view of 3M and Zeelan and in further view of the admitted prior art, the Applicant argues that there is no motivation to combine the references and assuming arguendo the combination, there is no expectation of success and certainly not the high degree of success achieved with the current invention. Once again, in response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Albrinck et al is directed to a damage resistant high pressure laminate whose surface has excellent scratch, mar, scrape and abrasion resistance wherein these properties can be

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attributed to the incorporation of an abrasion resistant particulate material, preferably alumina particles (a conventional mineral filler), in the impregnating/coating composition. Though Albrinck et al do not specifically teach that the abrasion resistant particles are spherical and particularly comprise alkali alumino silicate ceramic microspheres, 3M and Zeelan teach that **microspheres** offer a variety of **advantages over many traditionally irregularly shaped** mineral fillers, such as improved flow, lower resin demand, low viscosity/high filler loading, reduced warpage and shrinkage; and that alkali alumino silicate ceramic microsphere, in particular, provide **improved hardness**, corrosion resistance, and **abrasion resistance**. Hence, the Applicant's arguments with regards to unexpected results in terms of the high degree of scratch resistance achieved by the instant invention are not persuasive given that the 3M and Zeelan reference teaches that the alkali alumino silicate ceramic microspheres as utilized in the instant invention provide advantages and improvements which would result in improved scratch resistance over traditionally irregularly shaped mineral fillers, as utilized in Albrinck et al. Therefore, it would have been *prima facie* obvious to one skilled in the art at the time of the invention to utilize the ceramic microspheres, specifically the alkali alumino silicate ceramic microspheres taught by 3M and Zeelan, as the abrasion-resistant particulate material in the invention taught by Albrinck et al given that 3M and Zeelan teach that alkali alumino silicate ceramic microspheres provide a coated layer that has improved hardness and abrasion resistance as well as other advantages as noted above. Hence, the Examiner maintains her position that Claims 1-9, 11-12, 16, 20-22, 26-29, 33-35 and 39-61 are rejected as being unpatentable over the cited prior art references as discussed in detail in paragraphs 5-9 of the prior office action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428.

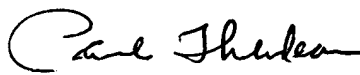
The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-5436 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



mrj  
October 11, 2001

  
Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700

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